

REMARKS

In the Office Action mailed October 7, 2004, the Examiner noted that claims 1-24 were pending, and rejected claims 1-24. Claim 1 has been amended, new claims 25 and 26 have been added and, thus, in view of the forgoing claims 1-26 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections are traversed below.

On page 3 of the Office Action, the Examiner rejects claims 1-3, 5, 7-12, 14-17 and 24 under 35 U.S.C. § 102 as anticipated by Nakajima. Page 5 of the Office Action rejects claims 6 and 13 under 35 U.S.C. § 103 over Nakajima and Kanno. Page 6 of the Office Action rejects claims 4 and 18-23 under 35 U.S.C. § 103 over Nakajima and Yamakawa.

Nakajima is directed to a calibration type situation. In this situation, a first user sets the parameters of the device, such as allowing a user to adjust colors of thumbnail images, then selects a thumbnail that most closely matches a print output and the system processes the images according to the selected thumbnail. If another, second user, wants to use the system, the system will process images according to the calibration set by the first user until the second user also does the comparison selection setting operation. If the first user wants to use the system again after the second user has changed the calibration, the first user must recalibrate the system to remove the second user's settings and establish the first user's settings again. That is, each user must calibrate the system.

Yamakawa also discloses a calibration type system for a copier. In Yamakawa, the user uses the copier to print a portion of the same image several times with the user manually adjusting the color balance for each output image. The user selects the desired image with the desired color balance and this information is input into the system. The system then prints subsequent images using the specified color balance (see Yamakawa, col. 5, lines 60-65). The next user of the system either uses the settings of the prior user or recalibrates the system.

Kanno is also directed to a copying machine and a calibration type operation. In Kanno the user sets control values using an interface such as a slider as shown in figure 2. The settings are stored in a storage unit 3. An image quality parameter decision unit 4 controls the image produced by the image processing unit 5. As described in Kanno col. 4, lines 22+ the unit 4 does a statistical analysis or a calculation of the parameter used to control unit 5. This calculation involves a "weighting" operation. Kanno also includes an embodiment in which a user is allowed to enter a user identification. In this situation, the unit 4 also "calculates an optimum parameter" for the user (see Kanno, col. 12, lines 48-55). Kanno does not describe

specifically what this user identification based calculation involves. If the reader of the Kanno disclosure refers to the prior description of the operation of the unit 4 in col. 4, the calculation operation that references the user identification would appear to involve some sort of weighting of the user's calibration setting with settings stored in the storage unit 3.

In contrast, the present invention is directed to a system that provides a user with a number of different picture variations of an image from which the user can select as the user's particular preference. The variations involve different characteristics of the image such as brightness, tone, contrast, tint, etc. That is, the first image of the variations presented might have a first tone setting, the second image a second tone setting, ... , etc. Among the variations presented to the user, in particular, is an image that has been selected as a preferred version of the image type by a large number of people ("preferred widely among a large number of people" - claim 1 and similar language in claims 4, 8, 15, 16, 17 and 18). For example, a variation that has a particular brightness, contrast, tone, etc. and that a number of people have selected as their preference can be selected. Say, for example, 50 people have been presented variations and 30 people have chosen a particular variation as their preference. This highly preferred variation is included in the variations from which the user can choose. This feature of the present invention is discussed at page 35, line 23- page 36, line 8. The invention is configured to present (prompt) a user with a number of correction image pictures comprising the correction image picture preferred by the largest number of people and certain other correction image picture variations for the user to select a preferred one so that the apparatus acquires information indicating which image picture variation is the user's preference. Because of this approach, the present invention reliably obtains and reproduces the preference of a user.

As noted above, the technology described in Nakajima, Kanno and Yamakawa is limited to those for a color calibration of hardware, color-adjustment required for each model of outputting apparatuses or production of an output color as may be specified by instructions of a user. All these processes are performed without respect to (or without analyzing) any feature (change in color density, balance between colors, etc.) associated with the subject image picture itself and, therefore, the results of these processes do not contain any ambiguity.

The present invention assumes a prior art correction technology that is different from any of the technologies described in Nakajima, Kanno and Yamakawa. The present invention technology assumes a method such as the one described in Katajimaki (Juha Katajimaki, et al., Image Dependent Gamma Selection Based on Color Palette Equalization and a Simple Lightness Model@, The Seventh Color Imaging Conference: Color Science, Systems, and

Applications, pp. 301-306.), i.e., a technology concerned with a different kind or type of "correction" from the kind or type of Nakajima, Kanno and Yamakawa. The present invention is designed to resolve particular problems that are associated only with higher level correction technologies, such as described in Katajimaki.

Taking a case, for example, associated with a "brightness" correction, according to the method of Katajimaki, a subject image picture is analyzed to estimate a brightness level of the subject image picture and the brightness level of the subject image picture is changed to a level presumed (or assumed) to be appropriate. Here, however, the appropriateness of the resultant brightness level to a person viewing the subject image picture is not known for sure until the person actually examines the image and expresses an opinion. If the subject image pictures are of an ordinary or typical type, a subsequent examination conducted by a person can provide reassurance of the appropriateness of the "brightness" correction performed automatically by the image correction apparatus in most of the cases. On the other hand, if the subject image picture is of a certain non-typical type, this may assumption may not apply. If, for example, the subject image picture contains a "night view of Hong Kong", people will find it appropriate when it contains Hong Kong streets in a glittering brightness against a black background occupying a majority of the entire space of the image picture. An automatic correction apparatus will likely determine the brightness level of such an image picture to be too low and change it to a higher level, consequently, producing an inappropriately corrected image picture (an image picture which is determined too bright by most people).

To solve this particular problem, one may consider configuring an apparatus to present to a user a number of corrected images of which the correction levels are different from each other and allow the user to select one he or she prefers. These correction levels, however, are set to comprise, normally, variations representing those toward the darker side and representing those toward the brighter side from the automatically determined level noted above that is too bright for most people. This is a solution that offers an inappropriate set of correction variations of an image.

The present invention solves the problem. According to the present invention, in order to have a set of correction variations of an image picture comprise appropriate correction variations, a survey of, say, 50 people is performed in which a large number of correction varieties of the image picture are presented to the surveyed people and where each of the people indicate which variation they find the most preferable. The results collected in this way are statistically processed to determine the correction variety that is preferred by the largest

number of the surveyed people and the thus determined correction variation is stored together with certain other correction varieties representing those either on the brighter side or on the darker side from the correction variety preferred by the largest number of people (see specification page 21, line 13 - page 23, line 10). The image correction apparatus, having been configured in this way, reliably obtains the user's preference because the user has been presented with a set of correction image pictures with variation comprising those collected based on knowledge of which correction variety is preferred by a large portion of users who have actually viewed the images.

It is submitted that the invention of independent claims distinguishes over the prior art and withdrawal of the rejection is requested.

The dependent claims depend from the above-discussed independent claims and are patentable over the prior art for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by the prior art. For example, claim 3 emphasizes allowing the user to select from among different types of images for the users preference. The prior art does not teach or suggest such. It is submitted that the dependent claims are independently patentable over the prior art.

New claim 25 not only emphasizes that the user is allowed to select from variations that include the most preferred one but also can set many preferences for themselves by using different user names. The prior art does not teach or suggest such. New claim 26 allowing the user to select from variations that include a group preferred variation. Again, the prior art does not teach or suggest such. It is submitted that these new claims, which are different and not narrower than prior filed claims distinguishes over the prior art.

It is submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

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If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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